



# Technical Integration Document Online PAN Verification

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### Version change Details:

Sr. No.	Versions	Change Details
1	1.1	Change in the sequence of Input parameters from vertical to horizontal.
2	1.2	1. Change in timestamp format in OPV JSON Request Element Details. 2. Addition of error code 32 and 33 in error code list applicable for new version 4. 3. Removal of error codes 7, 11, 13 and 14 as they were applicable to older versions of API. 4. Update in error code description of error code master for error codes 15, 18, 27, 28 and 33.

**\* DCT – Department of Commercial Taxes**

**1. Online PAN Verification API based services :**

Protean PAN verification service is exposed as stateless service over HTTPS publicly. Usage of open data format in JSON and widely used protocol such as HTTPS allows easy adoption and deployment of this service. To support strong end to end security and avoid request tampering and man-in-the-middle attacks, it is essential that the requests should be digitally signed.

To enable eligible Entities verify Permanent Account Numbers (PANs), Income Tax Department (ITD) has authorized Protean eGov Technologies Limited (Protean ) to launch an online PAN verification service for verification of PANs by authorized entities. Software (API) based PAN verification - The facility is an interface that allows the user to make an online verification of PAN by accessing the verification-site through a software application.

**1.1 Pre-requisites for integration testing:**

- a. Registration should be done with Protean for valid user ID.
- b. Procure the Digital signing certificate (class 2/3) from CA and use to sign JSON request.

**2. Online PAN Verification JSON API Service details:**

API based facility is to be enabled to Entity for Online PAN Verification.

**2.1 OPV JSON API Input details**

**UAT API Endpoint :** <https://121.240.36.237/TIN/PanInquiryAPIBackEnd>

**Prod API Endpoint:** <https://opvapi.egov-nsdl.com/TIN/PanInquiryAPIBackEnd>

Protocol	HTTPS
Method	POST
Content-Type	application/json

Entity application should create the JSON input request in below format.

## 2.2 OPV JSON Request Prototype –

### Header:

```
"User_ID": "",
"Records_count": "",
"Request_time" : "",
"Transaction_ID" : "",
"Version" : "",
```

### Request Body :

```
{
  " inputData" : [ {"pan": "", "name": "", "fathername": "", "dob": ""},
  :
  :
  :
  :
]
"signature": " "
}
```

## 2.3 OPV JSON Request Element Details -

Object Name	Object Parameter	Data Type	Length (Max)	Mandatory /Optional	Description
User_ID		Varchar	8	M	User Id of DCT or Other than DCT category.
Records_count		Integer	1	M	It represents the no. of PAN verification records in single API call request. Min. value is 1 and Max. will be 5
Request_time		TimeStamp	30	M	1. Request Timestamp received from Entity. 2. Request Timestamp Sample format i.e. 2024-06-01T09:58:15 3. Value in this field cannot be future date/time and this should not be older than last half an hour
Transaction_ID		Varchar	50	M	1. Request Transaction ID received from Entity must be unique. Recommended format <User_ID>:time timestamp e.g. V0099901: 20240115113550511211

					2. Transaction ID is combination of alphabets and numbers and allowed special characters are colon [:] and underscore [ _ ].
Version		Integer	1	M	Version Parameter should be 4
inputData	Pan	Varchar	10	M	This is user PAN Number
	Name	Varchar	85	M	Name is combination of first name, middle name, last name or Name on card. Name field is Mandatory.
	Fathername	Varchar	75	O	User will provide Fathers Name Father Name is combination of father first name, father middle name, father last name. <b>Value is mandatory for DCT category.</b> <b>For Other than DCT category, value will be blank</b>
	Dob	Date	10	M	It will be format of (DD/MM/YYYY) and it should be separated with slash (/)
Signature				M	Signature should create of request "InputData" by using entities Signing certificate public key.

### 3.1 OPV JSON Response Prototype –

#### Header :

```
"User_ID " : ""
"Records_count" : ""
"Response_time" : ""
"Transaction_ID" : ""
"Version" : ""
```

#### Response Body :

```
{
  " response_Code" : "",
  "outputData" : [ {" pan":""," pan_status":""," name":""," fathername":"","dob":"","seeding_status":""},
  .
  .
  .
  .
  ]
}
```

### 3.2 JSON Response Element Details -

Object Name	Object Parameter	Data Type	Length	Mandatory /Optional	Description
User_ID		VARCHAR	10	M	User ID received in Request
Records_count		Integer	1	M	It represents the no. of PAN records received in Request for verification.
Response_time		Time	30	M	Response time stamp return from Protean., Timestamp format i.e 2023-07-11-13.35.50.511211
Transaction_ID		VARCHAR	50	M	Transaction ID which is received in Request
Version		Integer	1	M	Version Parameter should be 4
response_Code		Integer	3	M	Refer point no. 4 for Response code.
outputData	Pan	VARCHAR	10	M	User PAN no.
	pan_status	VARCHAR	2	M	PAN verification status are below : "E"- EXISTING AND VALID, "F" - Marked as Fake "X" - Marked as Deactivated "D" - Deleted "N" - Record (PAN) Not Found in ITD Database/Invalid PAN "EA" - Existing and Valid but event marked as "Amalgamation" in ITD database "EC" - Existing and Valid but event marked as "Acquisition" in ITD database "ED" - Existing and Valid but event marked as "Death" in ITD database "EI" - Existing and Valid but event marked as "Dissolution" in ITD database "EL" - Existing and Valid but event marked as "Liquidated" in ITD database "EM" - Existing and Valid but event marked as "Merger" in ITD database "EP" - Existing and Valid but event marked as "Partition" in ITD database "ES" - Existing and Valid but event marked as "Split" in ITD database

					"EU" - Existing and Valid but event marked as "Under Liquidation" in ITD database
	Name	VARCHAR	1	M	Below information will be displayed for status E and E along with event. Y – YES (If matched with Database) N - NO (If not matched with Database)
	Fathurname	VARCHAR	1	O	Below information will be displayed for status E and E along with event for DCT category only. <b>For Other than DCT category, Value will be blank.</b> Y – YES (If matched with Database) N - NO (If not matched with Database)
	Dob	VARCHAR	1	M	Below information will be displayed for status E and E along with event. Y – YES (If matched with Database) N - NO (If not matched with Database)
	seeding_status	VARCHAR	2	M	Below information will be displayed for status E and E along with event. Y – Operative PAN R - Inoperative PAN NA -For all non-Individual PANs

#### 4 PAN Verification API Response code Details -

Sr No	Code	Description
1	1	Success
2	2	System Error
3	3	Authentication Failure
4	4	User not authorized
5	5	No PANs Entered or Number of PANs exceeds the limit (5)
6	6	User validity has expired
8	8	Not enough balance
9	9	Not an HTTPs request
10	10	POST method not used
12	12	Invalid version number entered

15	15	Valid User ID not sent in Input request and only PAN sent or User ID is greater than 12 character or Contains special characters.
16	16	Certificate Revocation List issued by the Certifying Authorities is expired
17	17	User id Deactivated
18	18	The Certificate used for signing is not matched with the certificate with the Database.
19	19	Signature sent in input request is blank
20	20	User ID and PAN not sent in Input request
21	21	No value sent in Input request
22	22	PAN Number is more than 10 characters or value is Null
23	23	System Failure or common error message for request
24	24	Duplicate Transaction ID entered
25	25	Parse Exception in JSON
26	26	Records Count Passed from the header value is not matched with the Records Count present in the JSON Input Array.
27	27	Name of Pan holder/Name on card is greater than 85 character or Value is null or contains ~ ^ special characters
28	28	Father Name field is greater than 75 character or Value is Null or contains ~ ^ special characters
29	29	Date of Birth format is incorrect it should be separated with slash (/) and in format of (DD/MM/YYYY)
30	30	Request Time is greater than 30 characters or Value is Null
31	31	Transaction ID is greater than 50 characters or Value is Null
32	32	Record count is blank or Record count contains alphabets or special characters
33	33	Request Time is could not be future date/time and could not be older than last half an hour

**5 . Sample JSON Request-Response for Department of Commercial Taxes (DCT) category to whom Father's name is applicable:**

**5.1 OPV API Sample JSON Request:**

**Header :**

```
"User_ID ":"V0066906"
"Records_count": "5"
"Request_time" : "2024-01-08-11.35.50.511211"
"Transaction_ID" : " V0066906:1234567890ABcdefGHIJH"
"Version" : "4"
```



**Body :**

```
{
  "inputData" : [ {"pan":"CYIPP8888A","name":"ABC PQR XYZ","fathername":"PQR ABC
FED","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR XYZ","fathername":"PQR ABC
FED","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR XYZ","fathername":"PQR ABC
FED","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR XYZ","fathername":"PQR ABC
FED","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR XYZ","fathername":"PQR ABC
FED","dob":"19/08/1974"} ],
  "signature":"J/EkJaexqXMM+GgDlIrkOs9O7za0zMgyO6rGskhh7XBsrDiKcWOZh3KuusP7LpznL5w/GeALNBPHHw
SRw+8KRHYuNITwIG2/9s0Gd6Kh2JfQVtCKzbt7kGXZYzFFsWkiM2XpqH3gjHVZX8EGEutFOOscrmjROpANMBuA4+
W4PzXLLyqDlsc/TA1N+gEhHvMFjPbG5ZsM+9AmqG2RQum+vpMP97UntQmtGMYD/IODN7vOQewzRdg4Txc12Jf
+yuCSB1ypdX72M/Wi8AAElatPZHhhBlpSHVYXEGwpuOg11c47vhzxUEUaQSIQ6OqLp0mYJHeRg5Uutpw==" }
```

**5.2 OPV API Sample JSON Response:**

**Header :**

```
"User_ID ":"V0066906"
"Records_count": "5"
"Response_time" : "2024-01-08-11.35.50.511211"
"Transaction_ID" : " V0066906:1234567890ABcdefGHIJH"
"Version" : "4"
```

**Body :**

```
{
  "response_Code" : "1",
  "outputData" : [ {"pan":" CYIPP8888A"," pan_status":"E"," name": "Y"," fathername":"Y","dob":"N","
seeding_status":"NA"}, {"pan":" CYIPP8888B"," pan_status":"EA","name": "N","
fathername":"Y","dob":"N","seeding_status":"Y"}, {"pan":" CYIPP8888C"," pan_status":"ED","name":
"Y","fathername":"Y","dob":"Y","seeding_status":"Y"}, {"pan":"CYIPP8888D"," pan_status":"E","name": "Y","
fathername":"Y","dob":"Y","seeding_status":"R"}, {"pan":" CYIPP8888E"," pan_status":"N","name": "",
fathername":"","dob":"","seeding_status":""} ]
}
```

**6 . Sample JSON Request-Response for Other than Department of Commercial Taxes (DCT) category to whom Father's name is not applicable:**

**6.1 OPV API Sample JSON Request:**

**Header :**

```
"User_ID ":"V0066906"  
"Records_count": "5"  
"Request_time" : "2024-01-08-11.35.50.511211"  
"Transaction_ID" : " V0066906:1234567890ABcdefGHIJH"  
"Version" : "4"
```

**Body :**

```
{  
  "inputData" : [ {"pan":"CYIPP8888A","name":"ABC PQR  
XYZ","fathername":"","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR  
XYZ","fathername":"","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR  
XYZ","fathername":"","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR  
XYZ","fathername":"","dob":"19/08/1974"}, {"pan":"CYIPP8888A","name":"ABC PQR  
XYZ","fathername":"","dob":"19/08/1974"} ],  
  "signature":"J/EkJaexqXMM+GgDlIrkOs9O7za0zMgyO6rGskhh7XBsrDiKcWOZh3KuusP7LpznL5w/GeALNBPHHw  
SRw+8KRHYuNITwIG2/9s0Gd6Kh2JfQvtCKzbt7kGXZYzFFsWkiM2XpqH3gjHVZX8EGEutF0OScrmjROpANMBuA4+  
W4PzXLLyqDIsc/TA1N+gEhHvMFjPbG5ZsM+9AmqG2RQum+vpMP97UntQmtGMYD/IODN7vOQewzRdg4Txc12Jf  
+yuCSB1ypdX72M/Wi8AAElatPZHhhBlpSHVYXEGwpuOg11c47vhzxUEUaQSIQ6OqLp0mYJHeRg5UutpweEOcXy7  
dhg=="  
}
```

## 6.2 OPV API Sample JSON Response:

### Header :

```
"User_ID ":"V0066906"  
"Records_count": "5"  
" Response_time" : "2024-01-08-11.35.50.511211"  
"Transaction_ID" : " V0066906:1234567890ABcdefGHIJH"  
"Version" : "4"
```

### Body :

```
{  
  "response_Code" : "1",  
  "outputData" : [ {"pan":" CYIPP8888A","pan_status":"E","name":  
"Y","fathername":"","dob":"N","seeding_status":"NA"}, {"pan":" CYIPP8888B","pan_status":"EA","name":  
"N","fathername":"","dob":"N","seeding_status":"Y"}, {"pan":" CYIPP8888C","pan_status":"ED","name":  
"Y","fathername":"","dob":"Y","seeding_status":"Y"}, {"pan":" CYIPP8888D","pan_status":"E","name":  
"Y","fathername":"","dob":"Y","seeding_status":"Y"}, {"pan":"  
CYIPP8888E","pan_status":"N","name":"","fathername":"","dob":"","seeding_status":""} ]  
}
```

## 7. OPV API Sample Error Response JSON :

### Header :

```
"User_ID ":"V0066906"  
"Records_count": "5"  
" Response_time" : "2024-01-08-11.35.50.511211"  
"Transaction_ID" : " V0066906:1234567890ABcdefGHIJH"  
"Version" : "4"
```

### Body :

```
{  
  "response_Code" : "3",  
  "outputData" : []  
}
```

===End===